DOCUMENT RESUME

ED 209 219 SP 019 053

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TITLE Differences in Teachers' Perceptions of the Effectiveness of Techniques of Teaching and Learning in Inner-city, Other-City, and Suburban Schools.
SPONS AGENCY Pittsburgh Univ., Pa. School of Education.
PUB DATE Jul 81
NOTE 67p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Black Teachers; *Elementary School Teachers; *Secondary School Teachers; Suburban Schools; *Teacher Attitudes; *Teaching Methods; Test Format; Urban Education; Whites

ABSTRACT

Teachers' perceptions of the effectiveness of thirty teaching techniques were examined through responses to a questionnaire. Participating teachers were 424 elementary, junior high, and high school teachers in a school district in western Pennsylvania. The schools were classified as inner-city, other-city, and suburban. The data were analyzed by race of teacher and type of school. It was found that black teachers and white teachers differed significantly on items concerning: (1) effective types of educational objectives; (2) student performance on tests; (3) degree of structure in learning environment; (4) students' ability to reason; (5) effectiveness of curriculum based on student abilities and student interests; (6) homework policies; (7) work assignments; (8) placing students in classroom groups; (9) lesson planning ideas; (10) student motivation; and (11) effective teaching methods. On some items, teachers' opinions tended to differ according to location of school: (1) test format and student performance; (2) student evaluation; (3) curriculum based on student abilities and student interests; (4) student skills; (5) use of audiovisual materials; (6) lesson planning ideas; (7) student activities; and (8) student placement in groups. (FG)

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DIFFERENCES IN TEACHERS' PERCEPTIONS OF THE EFFECTIVENESS OF TECHNIQUES OF TEACHING AND LEARNING IN INNER-CITY, OTHER-CITY, AND SUBURBAN SCHOOLS

by

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July, 1981

SP 019 053

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INTRODUCTION

Teaching is both a science and an art. Teaching is a science, because it is based upon a body of knowledge. Teaching is an art, because it requires the creative imparting of that body of knowledge, resulting in desirable change in the learner's behavior.

In imparting the knowledge, the teacher must use a variety of techniques of teaching and learning. The effectiveness of the techniques depends upon the teacher, the learner, and the body of knowledge to be learned.

PROBLEM OF THE STUDY

The problem of the study was to determine whether 30 techniques of teaching and learning were effective in inner-city, other-city, and suburban elementary and secondary schools, as perceived by teachers in the schools.

METHODS AND PROCEDURES

A questionnaire was designed for use in the study.[1] It was color-coded. Gray was used for teachers in junior high and secondary schools. Buff was used for teachers in elementary and middle schools.

A copy of the Membership Report (Report) of a school district in a major city in Western Pennsylvania was obtained. The Report listed the schools in the district by race and grade. Twenty-eight, or about 38 percent, of the 73 elementary schools, seven (7), or about 64 percent, of the

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[1] See Appendix A

11 middle schools and three (3), or about 23 percent, of the 13 secondary schools were listed as "Black." The remaining elementary, middle, and secondary schools in the district were listed as "Other."

A twenty-five percent sample of the "Black" elementary schools and a 25 percent sample of the "Other" elementary schools were randomly selected, for a total of seven (7) and twelve (12) elementary schools, respectively. Four (4), or about 60 percent, of the seven (7) "Black" middle schools were randomly selected, and the four (4) "Other" middle schools were included in the sample. Three (3), or about 30 percent, of the ten (10) "Other" secondary schools were randomly selected, and the three (3) "Black" secondary schools were included in the sample.

Permission was obtained from officials in a nearby suburban school district for teachers in the seven (7) elementary, two (2) junior high, and one (1) secondary schools in the district to participate in the study.

Two hundred fifty questionnaires were delivered to the offices of the principals of the "Black" elementary, middle, and secondary schools for distribution to teachers. Two hundred fifty were delivered to the suburban school district's office for distribution to teachers: 100 for the elementary schools and 100 for the junior high and secondary schools.

The teachers were asked in Item 3 of the questionnaire to indicate whether their present school assignment was in the: (1) Inner-city school, (2) Other-city school, or (3) Suburban school. Teachers in the "Black" elementary, middle, and secondary schools indicated that they were teaching in an "Inner-city school." Those in the "Other" elementary, middle, and secondary schools indicated that they were teaching in an "Other-city school." The remaining teachers felt that they were teaching in a "Suburban school."

Based upon the teachers' responses concerning their present teaching assignments, the schools were classified as either "Inner-city school," "Other-city school," or "Suburban school." The data were grouped accordingly. Because of the low frequencies in cells for the "Black" middle schools and the "Other" middle schools, the data for these schools were combined with the data for the respective elementary schools. Likewise, the data for the suburban junior high schools were combined with the data for the suburban secondary schools.

The number of questionnaires distributed and the number and percent of usable returns appear in Table 1, by type and location of school.

Four hundred twenty-four, or about 61 percent, of the teachers returned usable questionnaires. The percentage of returns for the suburban secondary schools was the highest. The percentage of returns for the inner-city secondary schools was the lowest.

TABLE 1. DISTRIBUTION OF QUESTIONNAIRES AND NUMBER AND PERCENT OF USABLE RETURNS, BY TYPE AND LOCATION OF SCHOOL

Type and location of school	Distribution	Usable returns	Percent
Inner-city Elementary	150	97	65
Other-city Elementary	150	85	57
Suburban Elementary	100	58	58
Inner-city Secondary	100	51	51
Other-city Secondary	100	58	58
Suburban Secondary	100	75	75
Total	700	424	61

ANALYSIS OF THE DATA

The response data for each of the 30 items in the questionnaire were analyzed in multiway frequency tables (BMDP2F, BMDP3F; Dixon, 1977). The chi-square statistic was used to test the independence between criterion rows and columns. Criteria used in the analyses were (1) race of teacher, and (2) type and location of school. The Pearson chi-square statistic was obtained with adjustments of low cell frequencies (that by the Yates procedure).

FINDINGS - The sample consisted of 424 teachers employed in the "Inner-city school," "Other-city school," and "Suburban school" in Western Pennsylvania.

Twelve of the chi-square tests of item responses by race of teacher and ten of the chi-square tests of item resonses by type and location of school were significant at the .05 level, for the table-listed degrees of freedom. Four (4) of the item responses were significant in both chi-square design analyses. The results appear in Table 24.[2] These findings indicate that there was a greater than chance (at the 5 percent probability) probability that responses to items in the questionnaire differed significantly.

Four options were used as response indicators to each item in the questionnaire. A fifth option, "no response," was also used in the analysis and chi-square tests. The results in Table 24 indicate that there was little agreement on significant differences to item responses by race of teacher and type and location of school. Also, significant chi-square

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[2] See Appendix B.

results were obtained for less than half of the items for both criteria of design analyses.

RACE OF TEACHER - Chi-square tests of item responses by race of teacher were significant at the .05 level for Items 4, 7, 13, 14, 15, 18, 22, 23, 24, 26, 27, and 29.

In Item 4 the teachers were given four (4) types of educational objectives and asked to indicate the type of objective that made a lesson the most difficult for their students to learn. The results appear in Table 2.

TABLE 2. TEACHER RESPONSES TO ITEM 4.

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Descriptive objects: e.g., Students will be able to describe the costumes worn by the characters in the play.	13	14.1	79	85.9	92	21.7
Affective objectives: e.g., Students will be able to appreciate various types of music.	29	11.3	228	88.7	257	60.6
Psychomotor objectives: e.g., Students will be able to print each letter of the alphabet.	5	20.0	20	80.0	25	5.9
Cognitive objectives: e.g., Students will be able to count from one to ten	9	20.5	35	79.5	44	10.4
No Response	1	16.7	5	83.3	6	1.4
Total	57	13.4	367	86.6	424	100.0

Chi-square = 9.33, df = 4, p = .05

A greater than expected number of black teachers felt that a lesson based upon cognitive objectives was the most difficult for their students to learn. White teachers felt that a lesson based upon affective objectives was the most difficult for their students to learn.

Item 7 pertained to testing. Teachers were asked to indicate the most likely reason for a majority of their students doing well on a test. Table 3 shows the results.

TABLE 3. TEACHER RESPONSES TO ITEM 7

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
The directions for the test are clear	17	21.8	61	78.2	78	18.4
The time allowed for the test is adequate	8	19.5	33	80.5	41	9.7
The choice of words in the test items is appropriate	21	9.9	191	90.1	212	50.0
The test items are not too long	10	12.2	72	87.8	82	19.3
No Response	1	9.1	10	90.9	11	2.6
Total	57	13.4	367	86.6	424	100.0

Chi-square = 10.32, df = 4, p = .03

White teachers believed that the most likely reason for their students doing well on a test was the appropriateness of the choice of words on the test. A greater than expected number of black teachers thought that

clear directions on the test was the most likely reason for their students doing well.

Teachers were asked in Item 13 to indicate whether the structured, unstructured, structured/unstructured, or unstructured/structured lesson was easiest for their students to learn. The results are shown in Table 4.

TABLE 4. TEACHER RESPONSES TO ITEM 13

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
A lesson that is as structured as possible	29	10.6	244	89.5	273	64.4
A lesson that is as unstructured as possible	2	28.6	5	71.4	7	1.7
Both "1" and "2", but "1" more than "2"	24	19.8	97	80.2	121	28.5
Both "1" and "2", but "2" more than "1"	2	8.7	21	91.3	23	5.4
No response	0	0.0	0	0.0	0	0.0
Total	57	13.4	367	86.6	424	100.0

Chi-square = 14.60, df = 4, p = .005

A greater than expected number of black teachers stated that a lesson as unstructured as possible was easiest for their students to learn. However, white teachers felt that the structured/unstructured lesson was easiest for their students, but unstructured more than structured.

In Item 14, the teachers were given four (4) types of reasoning and asked to identify the type that was easiest for their students. Table 5 contains the results.

TABLE 5. TEACHER RESPONSES TO ITEM 14

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Inductive reasoning, i.e., drawing general conclusions from specific material	22	10.4	190	89.6	212	50.0
Deductive reasoning, i.e., drawing specific conclusions from general material learned	15	12.9	101	87.1	116	27.4
Penetrative reasoning, i.e., going beyond the obvious and questioning what is often taken for granted	6	33.3	12	66.7	18	4.2
Flexible reasoning, i.e., approaching a problem from several points of view but reaching about the same goal	14	18.4	62	81.6	76	17.9
No Response	0	0.0	2	100.0	2	0.5
Total	57	13.4	367	86.6	424	100.0

Chi-square = 13.66, df = 4, p = .008

White teachers believed that inductive reasoning was the easiest for their students to do, while the black teachers believed that penetrative reasoning was the easiest for their students.

Teachers were asked in Item 15 to indicate whether a lesson based upon interest, ability, interest/ability, or ability/interest enables their students to achieve the most. The results appear in Table 6.

TABLE 6. TEACHER RESPONSES TO ITEM 15

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Interest of the students, regardless of their ability	10	8.4	109	91.6	119	28.1
Ability of the students, regardless of their interests	4	10.8	33	89.2	37	8.7
Both "1" and "2", but "1" more than "2"	26	19.0	111	81.0	137	32.3
Both "1" and "2", but "2" more than "1"	16	12.4	113	87.6	129	30.4
No Response	1	50.0	1	50.0	2	0.5
Total	57	13.4	367	86.6	424	100.0

Chi-square = 10.43, df = 4, p = .03

A greater than expected number of white teachers felt that their students achieve the most when a lesson was based upon the interest of students, regardless of the students' ability. Black teachers felt that their students achieve the most when a lesson was based upon interest and ability of students, but on interest more than on ability.

The teachers were asked in Item 18 to indicate which of four (4) possible responses best described their policy concerning homework. Table 7 shows the results.

TABLE 7. TEACHER RESPONSES TO ITEM 18

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Homework assignments are usually not made	18	11.5	138	88.5	156	36.8
Homework assignments are usually made for all students	30	12.9	202	87.1	232	54.7
Homework assignments are usually made only for students who do not learn the day's lesson	5	23.8	16	76.2	21	5.0
Homework assignments are usually made only to challenge students who do learn the day's lesson	3	27.3	8	72.7	11	2.6
No Response	1	25.0	3	75.0	4	0.9
Total	57	13.4	367	86.6	424	100.0

Chi-square = 12.18, df = 4, p = .016

Black teachers tended to make homework assignments only for students who did not learn the day's lesson. More than an expected number of white teachers usually did not make homework assignments, or they usually made homework assignments for all of the students.

Teachers were asked in Item 22 to indicate the type of educational objectives that facilitates learning the most. The results are shown in Table 8.

TABLE 8. TEACHER RESPONSES TO ITEM 22

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Question type: e.g., What are the primary colors?	12	16.9	59	83.1	71	16.7
Statement type: e.g., Students will be able to list the primary colors.	9	6.7	125	93.3	134	31.6
Both "1" and "2", but "1" more than "2"	20	19.6	82	80.4	102	24.1
Both "1" and "2", but "2" more than "1"	15	14.2	91	85.8	106	25.0
No Response	1	9.1	10	90.9	11	2.6
Total	57	13.4	367	86.6	424	100.0

Chi-square = 10.09, df = 4, p = .03

More than an expected number of black teachers felt that educational objectives of both the question type and statement type facilitate learning in their classes, but the question type of objective facilitated learning more than the statement type. On the other hand, white teachers said that educational objectives of the statement type facilitated learning the most in the classes.

Item 23 pertained to techniques used by the teachers to assign work to the student, i.e., assigning work to students independently or in groups. Table 9 shows the results.

TABLE 9. TEACHER RESPONSES TO ITEM 23

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Working independently at their seats	29	12.7	199	87.3	228	53.8
Working in groups of about three students	18	12.0	132	88.0	150	35.4
Working in groups of about five students	9	24.3	28	75.7	37	8.7
Working independently at the chalkboard	0	0.0	7	100.0	7	1.6
No Response	1	50.0	1	50.0	2	0.5
Total	57	13.4	367	86.6	424	100.0

Chi-square = 11.03, df = 4, p = .02

A greater than expected number of white teachers believed that their students achieve the most when the students were working in groups of about three (3) students. On the other hand, the black teachers said their students achieve the most when working in groups of about five (5) students.

Item 24 pertained to placing students in groups in the classroom. The results appear in Table 10.

TABLE 10. TEACHER RESPONSES TO ITEM 24

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Allow the students to work in a group of their choice	6	5.2	110	94.8	116	27.4
Place the students in a group appropriate for them	15	14.9	86	85.1	101	23.8
Both "1" and "2", but "1" more than "2"	16	21.3	59	78.7	75	17.7
Both "1" and "2", but "2" more than "1"	19	14.8	109	85.2	128	30.2
No Response	1	25.0	3	75.0	4	0.9
Total	57	13.4	367	86.6	424	100.0

Chi-square = 14.52, df = 4, p = .006

A greater than expected number of black teachers allowed their students to work in a group of their choice, and they placed the students in a group appropriate for them. However, the black teachers did the former more often than the latter. On the other hand, a greater than expected number of white teachers allowed their students to work in a group of their choice.

In Item 26, the teachers were asked to indicate the person that they contacted most often for "fresh" ideas for lessons. Table 11 shows the results.

TABLE 11. TEACHER RESPONSES TO ITEM 26

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
The school supervisor	2	33.3	4	66.7	6	1.4
Teachers in the School	25	8.9	257	91.1	282	66.5
Both "1" and "2", but "1" more than "2"	4	22.2	14	77.8	18	4.2
Both "1" and "2" but "2" more than "1"	25	25.3	74	74.7	99	23.4
No Response	1	5.3	18	94.7	19	4.5
Total	57	13.4	367	86.6	424	100.0

Chi-square = 24.34, df = 4, p = .0001

More than an expected number of white teachers got "fresh" ideas for their lessons from other teachers in the school. A greater than expected number of black teachers got "fresh" ideas for their lessons from the school supervisor.

Teachers were asked in Item 27 to identify the most effective methods of motivating students in their classes. The results are shown in Table 12.

TABLE 12. TEACHER RESPONSES TO ITEM 27

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Actively involving them in the learning	34	12.2	244	87.8	278	65.6
Praising them for work well done	17	17.2	82	82.8	99	23.4
Grouping them according to ability	1	3.4	28	96.6	29	6.8
Grouping them according to interest	4	26.7	11	73.3	15	3.5
No Response	1	33.3	2	66.7	3	0.7
Total	57	13.4	367	86.6	424	100.0

Chi-square = 11.09, df = 4, p = .02

Black teachers tended to motivate their students by grouping them according to interest. White teachers said that the most effective method of motivating students in their classes was by grouping them according to ability.

Teachers were asked in Item 29 to indicate the teaching method most effective for their students. The results are shown in Table 13.

TABLE 13. TEACHER RESPONSES TO ITEM 29

Response	Race of Teacher				Total	
	Black		White			
	Number	Percent	Number	Percent	Number	Percent
Demonstration method, i.e., teacher showing students	32	15.2	178	84.8	210	49.5
Laboratory method, i.e., students doing themselves	18	10.8	148	89.2	166	39.2
Textbook method, i.e., using material directly from the text	3	9.1	30	90.9	33	7.8
Display method, i.e., using displays in the classroom	3	25.0	9	75.0	12	2.8
No Response	1	33.3	2	66.7	3	0.7
Total	57	13.4	367	86.6	424	100.0

Chi-square = 9.28, df = 4, p = .05

A greater than expected number of black teachers indicated that the display method was most effective in their classrooms. More than an expected number of white teachers felt that the textbook method was most effective for their students.

TYPE AND LOCATION OF SCHOOL - Chi square tests of item responses by type and location of school were significant at the .05 level for Items 2, 7, 8, 15, 16, 19, 20, 21, 24, and 26.

Teachers were asked in Item 2 to indicate the type of test on which students did their best work. Table 14 shows the results.

A greater than expected number of teachers in the inner-city secondary and suburban secondary schools agreed that students usually did their best on the multiple choice test. Teachers in other-city secondary and inner-city elementary schools agreed that students usually did their best on the matching test. Teachers in the other-city elementary schools said students usually did their best on the true-false test. Teachers in suburban schools said that students usually did their best on the completion test.

Item 7 pertained to the performance of students on a test. The teachers were given four (4) possible reasons for students doing well on a test and asked to indicate the most likely reason for the success. The results are shown in Table 15.

More than an expected number of teachers in the inner-city secondary and other-city elementary schools felt that a majority of their students did well on a test because the test items were not too long. Teachers in the other-city secondary and suburban elementary schools believed that their students did well on a test because of the appropriateness of the choice of words on the test. A greater than expected number of teachers in the suburban secondary schools tended to feel that allowing adequate time for taking the test was the most likely reason for their students doing well on the test. On the other hand, teachers in inner-city elementary schools felt that a majority of their students did well on a test when directions for the test were clear.

TABLE 14. TEACHER RESPONSES TO ITEM 2

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
True-False test	5	9.8	5	9.8	5	9.8	15	29.4	14	27.5	7	13.7	51	12.0
Multiple choice test	27	17.1	23	14.6	35	22.2	26	16.4	26	16.4	21	13.3	158	37.3
Completion test	7	8.6	8	9.9	11	13.6	21	25.9	20	24.7	14	17.3	81	19.1
Matching test	10	9.1	18	16.4	13	11.8	34	30.9	22	20.0	13	11.8	110	25.9
No Response	2	8.3	4	16.7	11	45.8	1	4.2	3	12.5	3	12.5	24	5.7
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 35.35, df = 20, p = .01

TABLE 15. TEACHER RESPONSES TO ITEM 7

Response	Secondary School						Elementary School						Total	
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
The directions for the test are clear	4	5.1	6	7.7	7	9.0	32	41.0	17	21.8	12	15.4	78	18.4
The time allowed for the test is adequate	5	12.2	6	14.6	16	39.1	5	12.2	6	14.6	3	7.3	41	9.7
The choice of words in the test items is appropriate	30	14.1	33	15.6	36	17.0	41	19.3	39	18.4	33	15.6	212	50.0
The test items are not too long	12	14.6	12	14.6	11	13.4	17	20.8	21	25.6	9	11.0	82	19.3
No Response	0	0.0	1	9.1	5	45.4	2	18.2	2	18.2	1	9.1	11	2.6
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 38.62, df = 20, p = .007

In Item 8, the teachers were given four (4) techniques of teaching and asked to indicate the technique used by them most often to determine whether their students have understood a lesson. The results are shown in Table 16.

Teachers in the inner-city elementary schools tended to use seat-work to determine whether their students understood a lesson. Teachers in suburban secondary schools used a test. Those in the inner-city secondary schools used the quiz. Those in the other-city secondary, other-city elementary, and suburban elementary schools used class discussions.

Item 15 was to determine whether students achieved the most when a lesson was based upon interest, ability, ability/interest, or interest/ability. Table 17 contains the results.

A greater than expected number of teachers in inner-city secondary and suburban secondary schools felt that their students achieved the most when a lesson was based upon interests of students, regardless of their ability. Those in other-city secondary and inner-city elementary schools said their students achieved the most when a lesson was based upon the ability of students, regardless of interest. Teachers in other-city elementary schools said their students achieved the most when a lesson was based upon both interest and ability, but ability more than interests. Teachers in suburban elementary schools said students achieved the most when a lesson was based upon both interests and ability, but interests more than ability.

Item 16 pertained to skills of students. Table 18 shows the results.

A greater than expected number of teachers in other-city elementary schools felt that their students were strongest in speaking skills. Teachers

TABLE 16. TEACHER RESPONSES TO ITEM 8

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Seatwork	15	10.7	12	8.5	22	15.6	47	33.3	30	21.3	15	10.6	141	33.2
Test	8	10.3	12	15.4	21	26.9	16	20.5	14	17.9	7	9.0	78	18.4
Quiz	19	21.1	13	14.4	16	17.8	13	14.4	17	18.9	12	13.4	90	21.2
Class discussion	9	8.3	21	19.5	13	12.0	20	18.5	22	20.4	23	21.3	108	25.5
No Response	0	0.0	0	0.0	3	42.8	1	14.3	2	28.6	1	14.3	7	1.7
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 35.79, df = 20, p = .01

TABLE 17. TEACHER RESPONSES TO ITEM 15

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Interests of the students, regardless of their ability	26	21.9	15	12.6	26	21.9	13	10.9	21	17.6	18	15.1	119	28.1
Ability of the students, regardless of their interests	3	8.1	9	24.3	7	19.0	11	29.7	4	10.8	3	8.1	37	8.7
Both "1" and "2", but "1" more than "2"	13	9.5	17	12.4	21	15.3	35	25.6	27	19.7	24	17.5	137	32.3
Both "1" and "2", but "2" more than "1"	9	7.0	16	12.4	21	16.3	37	28.7	33	25.6	13	10.0	129	30.4
No Response	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	2	0.5
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 35.41, df = 20, p = .01

TABLE 18. TEACHER RESPONSES TO ITEM 16

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Speaking skills	21	9.3	35	15.5	40	17.7	50	22.1	52	23.0	28	12.4	226	53.3
Writing skills	5	12.5	5	12.5	9	22.5	11	27.5	6	15.0	4	10.0	40	9.4
Reading skills	2	2.7	2	2.7	10	13.3	22	29.3	16	21.3	23	30.7	75	17.7
Listening skills	22	30.1	15	20.6	12	16.4	11	15.1	10	13.7	3	4.1	73	17.2
No Response	1	10.0	1	10.0	4	40.0	3	30.0	1	10.0	0	0.0	10	2.4
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 60.66, df = 20, p = .0000

in suburban secondary schools believed that their students were strongest in writing skills. Students in inner-city elementary and suburban elementary schools were strongest in reading skills. Students in inner-city secondary and other-city secondary schools were strongest in listening skills.

Item 19 pertained to the selection of audio-visual materials in order to make a lesson "come alive." The results are shown in Table 19. Teachers in suburban secondary and inner-city elementary schools most often used the record player to make a lesson "come alive." Teachers in the other-city elementary schools used the 16 mm projector. Teachers in the inner-city secondary, other-city secondary and suburban elementary schools used the filmstrip projector.

Teachers were given four (4) responses in Item 20 and asked to identify the response most helpful to them in planning a lesson. The results are in Table 20.

Teachers in suburban elementary schools believed that books in the school library were the most helpful to them. Teachers in the other-city secondary and inner-city elementary schools said the workbook was most helpful. Teachers in the inner-city secondary, suburban secondary, and other-city elementary schools said books in their personal library were the most helpful.

Item 21 pertained to student activities. Teachers were asked to identify the activity which has the greatest educational benefit for their students. Table 21 shows the results.

Teachers in inner-city secondary and inner-city elementary schools believed that discussing current events had the greatest educational benefit

TABLE 19. TEACHER RESPONSES TO ITEM 19

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Record Player	4	7.1	4	7.1	14	25.0	19	33.9	10	17.9	5	9.0	56	13.2
16 mm projector	20	11.8	18	10.6	30	17.6	30	17.6	46	27.1	26	15.3	170	40.1
Overhead projector	10	13.5	12	16.2	11	14.9	22	29.7	14	18.9	5	6.8	74	17.5
Filmstrip projector	17	14.9	22	19.1	15	13.0	24	20.9	15	13.0	22	19.1	115	27.1
No Response	0	0.0	2	22.2	5	55.6	2	22.2	0	0.0	0	0.0	9	2.1
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 35.64, df = 20, p = .01

TABLE 20. TEACHER RESPONSES TO ITEM 20

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Books in the school library	2	4.5	3	6.8	7	15.9	3	6.9	10	22.7	19	43.2	44	10.4
Workbook(2) for the class	11	13.6	13	16.0	11	13.6	28	34.6	13	16.0	5	6.2	81	19.1
Books in personal library	16	18.4	11	12.6	20	23.0	14	16.1	20	23.0	6	6.9	87	20.5
Textbook(s) for the class	22	10.4	31	14.7	37	17.5	51	24.2	42	19.9	28	13.3	211	49.8
No Response	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	1	0.2
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 45.94, df = 20, p =.0008

TABLE 21. TEACHER RESPONSES TO ITEM 21

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Discussing current events	18	19.4	14	15.0	16	17.2	25	26.9	12	12.9	8	8.6	93	21.9
Making reports on topics selected by them	9	10.5	14	16.3	7	8.1	15	17.4	20	23.3	21	24.4	86	20.3
Sharing their out-of-school experiences	18	10.3	18	10.3	30	17.3	42	24.1	44	25.3	22	12.7	174	41.0
Making reports on topics selected by the teacher	4	8.0	10	20.0	12	24.0	10	20.0	8	16.0	6	12.0	50	11.8
No Response	2	9.5	2	9.5	10	47.6	5	23.8	1	4.8	1	4.8	21	5.0
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 38.95, df = 20, p = .006

for their students. Teachers in suburban elementary schools said making reports on topics selected by the students had the greatest educational benefit. Teachers in other-city elementary schools said sharing out-of-school experiences of students had the greatest educational benefit. Teachers in other-city secondary and suburban secondary schools said making reports on topics selected by the teacher had the greatest educational benefit.

Teachers were asked in Item 24 to indicate the practice they followed most often in placing their students in a group. The results are shown in Table 22.

A greater than expected number of teachers in the inner-city secondary, other-city secondary and suburban secondary schools said they allowed students to work in a group of their choice. Teachers in the inner-city elementary, other-city elementary, and suburban elementary schools said they allowed their students to choose a group, and they placed their students in a group appropriate for them. However, they did the latter more often than the former.

In Item 26, the teachers were asked to indicate the person they contacted most often for "fresh" ideas. The results appear in Table 23.

A greater than expected number of teachers in the inner-city secondary schools said they contacted their supervisor. Teachers in the other-city secondary and suburban secondary schools said they contacted other teachers in the school. Teachers in the inner-city elementary, other-city elementary, and suburban schools said they contacted their supervisor and teachers in the school for "fresh" ideas for lessons. However, they contacted the school supervisor more often than other teachers.

TABLE 22. TEACHER RESPONSES TO ITEM 24

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allow the students to work in a group of their choice	18	15.5	20	17.2	39	33.6	14	12.1	16	13.8	9	7.8	116	27.4
Place the students in a group appropriate for them	13	12.9	13	12.9	9	8.9	29	28.7	24	23.7	13	12.9	101	23.8
Both "1" and "2", but "1" more than "2"	11	14.7	12	16.0	14	18.7	16	21.3	13	17.3	9	12.0	75	17.7
Both "1" and "2", but "2" more than "1"	8	6.3	13	10.2	12	9.4	37	28.9	31	24.2	27	21.0	128	30.2
No Response	1	25.0	0	0.0	1	25.0	1	25.0	1	25.0	0	0.0	4	0.9
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 54.17, df = 20, p = .0001

TABLE 23. TEACHER RESPONSES TO ITEM 26

Response	Secondary School						Elementary School							
	Inner-City		Other-City		Suburban		Inner-City		Other-City		Suburban		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
The school supervisor	3	50.0	0	0.0	0	0.0	2	33.3	1	16.7	0	0.0	6	1.4
Teachers in the school	31	11.0	44	15.6	61	21.6	55	19.5	51	18.1	40	14.2	282	66.5
Both "1" and "2", but "1" more than "2"	1	5.5	0	0.0	0	0.0	7	38.9	5	27.8	5	27.8	18	4.2
Both "1" and "2", but "2" more than "1"	15	15.2	10	10.1	8	8.0	29	29.3	25	25.3	12	12.1	99	23.4
No Response	1	5.3	4	21.0	6	31.6	4	21.0	3	15.8	1	5.3	19	4.5
Total	51	12.0	58	13.7	75	17.7	97	22.9	85	20.0	58	13.7	424	100.0

Chi-square = 32.64, df = 20, p = .03

DISCUSSION

The problem of the study was to determine whether thirty techniques of teaching and learning were effective in inner-city, other-city, and suburban elementary and secondary schools, as perceived by teachers in the schools.

A questionnaire was designed to determine teachers' perceptions of the effectiveness of thirty techniques of teaching and learning and distributed to teachers in the participating schools. Four hundred twenty-four, or about 61 percent, of the teachers returned usable questionnaires. The data were analyzed by race of teacher and type and location of school.[3]

There were significant differences in the perceptions of black teachers and white teachers concerning the effectiveness of twelve of the thirty techniques. The significant differences included the following: the type of educational objective most difficult for students to learn; the reason why students do well on a test; whether a structured or unstructured lesson is easier for students to learn; the type of reasoning easiest for students; whether students achieve more when a lesson is based upon interests or ability; policies concerning homework; the type of educational objective that facilitates learning the most; whether students achieve the most working in small groups or independently; allowing students to work in a group of their choice or placing the students in a group appropriate for them; the person(s) contacted most often for "fresh" ideas for lessons; an effective method of motivating students; and an effective method of teaching.

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[3]See Appendix C.

There were significant differences between the "inner-city", "other-city," and "suburban" elementary and secondary schools concerning the effectiveness of ten of the thirty techniques. The significant differences included the following: the type of test on which students usually do their best; the most likely reason for students doing well on a test; the means used most often to determine whether students have understood a lesson; whether students achieve more when a lesson is based upon interests or ability; the strongest skills of the students; the selection of audio-visuals for use in the classroom; resource materials that are helpful in planning a lesson; classroom activities having the greatest benefits for students; allowing students to work in a group of their choice or placing the students in a group appropriate for them; and the person(s) contacted most often for "fresh" ideas for lessons.

The findings provide some insight into the perceptions of black teachers and white teachers in the three (3) types of schools concerning the effectiveness of techniques of teaching and learning. Each of the items in the questionnaire pertained to a different technique. Therefore, it was not surprising that patterns were not observed in the data for black teachers and white teachers and/or the three (3) types of schools.

CONCLUSION

1. In general, black teachers and white teachers are in agreement concerning whether certain techniques of teaching and learning are effective, or ineffective, in their classrooms. However, there are significant differences between black teachers and white teachers concerning the effectiveness, or ineffectiveness, of other techniques in their classrooms.

2. In general, there is agreement among teachers in "inner-city," "other-city," and "suburban" elementary and secondary schools concerning whether certain techniques of teaching and learning are effective, or ineffective, in their schools. However, there are significant differences between teachers in the three (3) types and locations of schools concerning the effectiveness, or ineffectiveness, of other techniques in the schools.

3. There are no clear patterns concerning the techniques that black teachers perceive to be effective in their classrooms.

4. There are no clear patterns concerning the techniques that white teachers perceive to be effective in their classrooms.

5. There are no clear patterns between teachers in the three (3) types of schools concerning the techniques that they perceive to be effective in their schools.

APPENDICES

APPENDIX A

Questionnaire on Techniques of Teaching and Learning

QUESTIONNAIRE ON TECHNIQUES OF TEACHING AND LEARNING

PART I. GENERAL INFORMATION (Please check as appropriate.)

1. Sex

   (1) _____ Female
   (2) _____ Male

2. Race

   (1) _____ Black
   (2) _____ White
   (3) _____ Other (Specify)

3. Present school assignment

   (1) _____ Inner-city school
   (2) _____ Other-city school
   (3) _____ Suburban school
   (4) _____ Rural school
   (5) _____ Uncertain

4. Racial composition of student body

   (1) _____ Predominately Black
   (2) _____ Predominately White
   (3) _____ Other Race (Specify)
   _____

5. Teaching experience

   (1) _____ 2 years or less
   (2) _____ 3-6 years
   (3) _____ 7-10 years
   (4) _____ 11-14 years
   (5) _____ 15-18 years
   (6) _____ 19 years or more

6. Indicate the type of school in which you do most of your teaching presently.

   (1) _____ Grade 7-12
   (2) _____ Grade 7-9
   (3) _____ Grade 9-12
   (4) _____ Grade 11-12
   (5) _____ Other (Specify)
   _____

7. Indicate the subject area in which you do most of your teaching presently.

   (1) _____ Agriculture
   (2) _____ Art
   (3) _____ Business Education
   (4) _____ Distributive Education
   (5) _____ Diversified Occupations
   (6) _____ English
   (7) _____ Foreign Language
   (8) _____ Home Economics
   (9) _____ Industrial Arts
   (10) _____ Mathematics
   (11) _____ Music
   (12) _____ Physical Education
   (13) _____ Science
   (14) _____ Social Studies
   (15) _____ Other (Specify)
   _____

PART II: MULTIPLE CHOICE ITEMS

DIRECTIONS – Thirty (30) multiple-choice items pertaining to teaching and learning appear below. Please respond to each item by circling the number of one of the four (4) possible responses. The purpose of the questionnaire is merely to identify those techniques of teaching and learning that YOU HAVE FOUND MOST EFFECTIVE IN YOUR CLASSES. There are no right or wrong responses.

1. Which of the following fosters learning in your classroom the most? (Please circle only one number.)

   (1) Continual but appropriate praise of students
   (2) Use of two or more of the senses of students
   (3) Immediate feedback to students
   (4) Interest of students in the lesson

2. Your students usually do their best on which one of the following types of tests? (Please circle only one number.)

   (1) True-False test
   (2) Multiple choice test
   (3) Completion test
   (4) Matching test

3. Which one of the following best characterizes the learning style of students in your classroom? (Please circle only one number.)

   (1) They learn by observing.
   (2) They learn by listening.
   (3) They learn by doing.
   (4) They learn by discussing.

4. A lesson based upon which of the following types of educational objectives is the most difficult for your students to learn? (Please circle only one number.)

   (1) Descriptive objectives: E.g., Students will be able to describe the costumes worn by the characters in the play.
   (2) Affective objectives: E.g., Students will be able to appreciate various types of music.
   (3) Psychomotor objectives: E.g., Students will be able to print each letter of the alphabet.
   (4) Cognitive objectives: E.g., Students will be able to count from one to ten.

5. When you give your students a homework assignment, most of then return the assignment when the assignment requires which of the following? (Please circle only one number.)

   (1) About 10 minutes to complete
   (2) About 15 minutes to complete
   (3) About 20 minutes to complete
   (4) About 25 minutes to complete

6. Which of the following gives you the best feedback concerning whether your students are understanding a lesson? (Please circle only one number.)

   (1) Students asking questions during the lesson
   (2) Teacher answering questions during the lesson
   (3) Teacher asking questions during the lesson
   (4) Students answering questions during the lesson

7. When a majority of the students in your class do well on a test, which of the following is the most likely reason? (Please circle only one number.)

   (1) The directions for the test are clear.
   (2) The time allowed for the test is adequate.
   (3) The choice of words in the test items is appropriate.
   (4) The test items are not too long.

8. Which of the following do you use most often to determine whether your students have understood a lesson? (Please circle only one number.)

   (1) Seat work
   (2) Test
   (3) Quiz
   (4) Class discussion

9. If a majority of your students learned a concept easily, which of the following is the best possible explanation? (Please circle only one number.)

   (1) The concept was related to their previous learning.
   (2) The students saw an immediate need to learn the concept.
   (3) Two or more of the students' senses were involved in learning the concept.
   (4) The concept was related to the interests of the students.

10. In beginning a new lesson, which of the following facilitates learning the lesson the most? (Please circle only one number.)

(1) Showing the students that they need to learn the lesson in order to learn a future lesson
(2) Developing self-confidence among the students that they have the ability to learn the lesson
(3) Establishing for the students a relationship between the new lesson and the previous lesson(s)
(4) Showing the students how the new lesson will be helpful to them in their out-of-school environment

11. If one of your students is having difficulty learning a concept, which of the following do you do most often? (Please circle only one number.)

(1) Help the student during the lesson
(2) Help the student immediately after the lesson
(3) Help the student during the next "free" period
(4) Help the student after school

12. When using the question-answer method of teaching, which of the following do you find most effective? (Please circle only one number.)

(1) Students asking questions and teacher answering.
(2) Teacher asking questions and students answering.
(3) Both "1" and "2", but "1" more than "2".
(4) Both "1" and "2", but "2" more than "1"

13. Which of the following types of lessons is easiest for your students to learn? (Please circle only one number.)

(1) A lesson that is as structured as possible
(2) A lesson that is as unstructured as possible
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

14. Of the following types of reasoning, which is the easiest for your students to do? (Please circle only one number.)

(1) Inductive reasoning, i.e., drawing general conclusions from specific material learned
(2) Deductive reasoning, i.e., drawing specific conclusions from general material learned
(3) Penetrative reasoning, i.e., going beyond the obvious and questioning what is often taken for granted
(4) Flexible reasoning, i.e., approaching a problem from several points of view but reaching about the same goal

15. Your students achieve the most when a lesson is based upon which of the following? (Please circle only one number.)

(1) Interests of the students, regardless of their ability
(2) Ability of the students, regardless of their interests
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

16. Of the skills listed below, your students are strongest in: (Please circle only one number.)

(1) Speaking skills
(2) Writing skills
(3) Reading skills
(4) Listening skills

17. In writing educational objectives and selecting materials for the lesson, which of the following gives you the best results? (Please circle only one number.)

(1) Writing the objectives; then, selecting the material
(2) Selecting the material; then, writing the objectives
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

18. Which of the following best describes your policy concerning homework assignments? (Please circle only one number.)

(1) Homework assignments are usually not made.
(2) Homework assignments are usually made for all students.
(3) Homework assignments are usually made only for students who do not learn the day's lesson.
(4) Homework assignments are usually made only to challenge students who do learn the day's lesson.

19. When you feel that audio-visual materials are needed in order to make a lesson "come alive", which of the following do you use most often? (Please circle only one number.)

(1) Record Player
(2) 16 mm projector
(3) Overhead projector
(4) Filmstrip projector

20. Which of the following is the most helpful to you in planning a lesson for your students? (Please circle only one number.)

(1) Books in the school library
(2) Workbook(s) for the class
(3) Books in personal library
(4) Textbook(s) for the class

21. Of the following, which has the greatest educational benefit for your students? (Please circle only one number.)

(1) Discussing current events
(2) Making reports on topics selected by them
(3) Sharing their out-of-school experiences
(4) Making reports on topics selected by the teacher

22. Educational objectives of which of the following types facilitates learning the most in your classes? (Please circle only one number.)

(1) Question type: E.g., What are the primary colors?
(2) Statement type: E.g., Students will be able to list the primary colors.
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

23. Your students achieve the most when they are doing which of the following? (Please circle only one number.)

(1) Working independently at their seats
(2) Working in groups of about three students
(3) Working in groups of about five students
(4) Working independently at the chalkboard

24. When you decide to place your students in groups, which of the following do you do most often? (Please circle only one number.)

(1) Allow the students to work in a group of their choice
(2) Place the students in a group appropriate for them
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

25. Which of the following is the most accurate statement concerning the commercial material that you use in your classroom? (Please circle only one number.)

(1) The material is not relevant for a majority of the students.
(2) The material is too easy for a majority of the students.
(3) The material is highly appropriate for a majority of the students.
(4) The material is too difficult for a majority of the students.

26. Of the following, which person(s) do you contact most often for "fresh" ideas for your lessons? (Please circle only one number.)

(1) The school supervisor
(2) Teachers in the school
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

27. Of the following, which is the most effective method of motivating the students in your classes? (Please circle only one number.)

(1) Actively involving them in the learning
(2) Praising them for work well done
(3) Grouping them according to ability
(4) Grouping them according to interest

28. Which of the following encourages your students the most to return their homework? (Please circle only one number.)

(1) Making an assignment that is of reasonable length
(2) Giving credit both for returning the assignment and correctness
(3) Discussing the assignment in class the day it is returned
(4) Making the assignment only when absolutely necessary

29. Which of the following teaching methods is most effective for your students? (Please circle only one number.)

(1) Demonstration method, i.e., teacher showing students
(2) Laboratory method, i.e., students doing themselves
(3) Textbook method, i.e., using material directly from the text
(4) Display method, i.e., using displays in the classroom

30. When you make an assignment for the classroom, which of the following is the most effective? (Please circle only one number.)

(1) Writing the assignment on the chalkboard
(2) Making the assignment orally
(3) Placing the assignment on stencil
(4) Flashing the assignment on a screen

Indicate whether you would like to have a copy of the results of the survey.

Yes _____

No _____

PLEASE RETURN IN THE ENCLOSED, STAMPED, SELF-ADDRESSED ENVELOPE.

QUESTIONNAIRE ON TECHNIQUES OF TEACHING AND LEARNING

PART I. GENERAL INFORMATION (Please check as appropriate.)

1. Sex
   (1) _____ Female
   (2) _____ Male

2. Race
   (1) _____ Black
   (2) _____ White
   (3) _____ Other (Specify) _____

3. Present school assignment
   (1) _____ Inner-city school
   (2) _____ Other-city school
   (3) _____ Suburban school
   (4) _____ Rural school
   (5) _____ Uncertain

4. Racial composition of student body
   (1) _____ Predominately Black
   (2) _____ Predominately White
   (3) _____ Other Race (Specify) _____

5. Teaching experience
   (1) _____ 2 years or less
   (2) _____ 3-6 years
   (3) _____ 7-10 years
   (4) _____ 11-14 years
   (5) _____ 15-18 years
   (6) _____ 19 years or more

6. Indicate the type of classroom in which you do most of your teaching presently.
   (1) _____ Self-contained classroom
   (2) _____ Open classroom
   (3) _____ Subject-area classroom
   (4) _____ Other (Specify) _____

7. Indicate the type of school in which you do most of your teaching presently.
   (1) _____ Elementary school (Grades K-5)
   (2) _____ Elementary school (Grades K-6)
   (3) _____ Elementary school (Grades K-8)
   (4) _____ Middle school (Grades 5, 6, 7)
   (5) _____ Middle school (Grades 6, 7, 8)
   (6) _____ Middle school (Grades 7, 8)

PART II: MULTIPLE CHOICE ITEMS

DIRECTIONS – Thirty (30) multiple-choice items pertaining to teaching and learning appear below. Please respond to each item by circling the number of one of the four (4) possible responses. The purpose of the questionnaire is merely to identify those techniques of teaching and learning that YOU HAVE FOUND MOST EFFECTIVE IN YOUR CLASSES. There are no right or wrong responses.

1. Which of the following fosters learning in your classroom the most? (Please circle only one number.)

   (1) Continual but appropriate praise of students
   (2) Use of two or more of the senses of students
   (3) Immediate feedback to students
   (4) Interest of students in the lesson

2. Your students usually do their best on which one of the following types of tests? (Please circle only one number.)

   (1) True-False test
   (2) Multiple choice test
   (3) Completion test
   (4) Matching test

3. Which one of the following best characterizes the learning style of students in your classroom? (Please circle only one number.)

   (1) They learn by observing.
   (2) They learn by listening.
   (3) They learn by doing.
   (4) They learn by discussing.

4. A lesson based upon which of the following types of educational objectives is the most difficult for your students to learn? (Please circle only one number.)

   (1) Descriptive objectives: E.g., Students will be able to describe the costumes worn by the characters in the play.
   (2) Affective objectives: E.g., Students will be able to appreciate various types of music.
   (3) Psychomotor objectives: E.g., Students will be able to print each letter of the alphabet.
   (4) Cognitive objectives: E.g., Students will be able to count from one to ten.

5. When you give your students a homework assignment, most of then return the assignment when the assignment requires which of the following? (Please circle only one number.)

(1) About 10 minutes to complete
(2) About 15 minutes to complete
(3) About 20 minutes to complete
(4) About 25 minutes to complete

6. Which of the following gives you the best feedback concerning whether your students are understanding a lesson? (Please circle only one number.)

(1) Students asking questions during the lesson
(2) Teacher answering questions during the lesson
(3) Teacher asking questions during the lesson
(4) Students answering questions during the lesson

7. When a majority of the students in your class do well on a test, which of the following is the most likely reason? (Please circle only one number.)

(1) The directions for the test are clear.
(2) The time allowed for the test is adequate.
(3) The choice of words in the test items is appropriate.
(4) The test items are not too long.

8. Which of the following do you use most often to determine whether your students have understood a lesson? (Please circle only one number.)

(1) Seat work
(2) Test
(3) Quiz
(4) Class discussion

9. If a majority of your students learned a concept easily, which of the following is the best possible explanation? (Please circle only one number.)

(1) The concept was related to their previous learning.
(2) The students saw an immediate need to learn the concept.
(3) Two or more of the students' senses were involved in learning the concept.
(4) The concept was related to the interests of the students.

10. In beginning a new lesson, which of the following facilitates learning the lesson the most? (Please circle only one number.)

(1) Showing the students that they need to learn the lesson in order to learn a future lesson
(2) Developing self-confidence among the students that they have the ability to learn the lesson.
(3) Establishing for the students a relationship between the new lesson and the previous lesson(s)
(4) Showing the students how the new lesson will be helpful to them in their out-of-school environment

11. If one of your students is having difficulty learning a concept, which of the following do you do most often? (Please circle only one number.)

(1) Help the student during the lesson
(2) Help the student immediately after the lesson
(3) Help the student during the next "free" period
(4) Help the student after school

12. When using the question-answer method of teaching, which of the following do you find most effective? (Please circle only one number.)

(1) Students asking questions and teacher answering.
(2) Teacher asking questions and students answering.
(3) Both "1" and "2", but "1" more than "2".
(4) Both "1" and "2", but "2" more than "1"

13. Which of the following types of lessons is easiest for your students to learn? (Please circle only one number.)

(1) A lesson that is as structured as possible
(2) A lesson that is as unstructured as possible
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

14. Of the following types of reasoning, which is the easiest for your students to do? (Please circle only one number.)

(1) Inductive reasoning, i.e., drawing general conclusions from specific material learned
(2) Deductive reasoning, i.e., drawing specific conclusions from general material learned
(3) Penetrative reasoning, i.e., going beyond the obvious and questioning what is often taken for granted
(4) Flexible reasoning, i.e., approaching a problem from several points of view but reaching about the same goal

15. Your students achieve the most when a lesson is based upon which of the following? (Please circle only one number.)

(1) Interests of the students, regardless of their ability
(2) Ability of the students, regardless of their interests
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

16. Of the skills listed below, your students are strongest in: (Please circle only one number.)

(1) Speaking skills
(2) Writing skills
(3) Reading skills
(4) Listening skills

17. In writing educational objectives and selecting materials for the lesson, which of the following gives you the best results? (Please circle only one number.)

(1) Writing the objectives; then, selecting the material
(2) Selecting the material; then, writing the objectives
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

18. Which of the following best describes your policy concerning homework assignments? (Please circle only one number.)

(1) Homework assignments are usually not made.
(2) Homework assignments are usually made for all students.
(3) Homework assignments are usually made only for students who do not learn the day's lesson.
(4) Homework assignments are usually made only to challenge students who do learn the day's lesson.

19. When you feel that audio-visual materials are needed in order to make a lesson "come alive", which of the following do you use most often? (Please circle only one number.)

(1) Record Player
(2) 16 mm projector
(3) Overhead projector
(4) Filmstrip projector

20. Which of the following is the most helpful to you in planning a lesson for your students? (Please circle only one number.)

(1) Books in the school library
(2) Workbook(s) for the class
(3) Books in personal library
(4) Textbook(s) for the class

21. Of the following, which has the greatest educational benefit for your students? (Please circle only one number.)

(1) Discussing current events
(2) Making reports on topics selected by them
(3) Sharing their out-of-school experiences
(4) Making reports on topics selected by the teacher

22. Educational objectives of which of the following types facilitates learning the most in your classes? (Please circle only one number.)

(1) Question type: E.g., What are the primary colors?
(2) Statement type: E.g., Students will be able to list the primary colors.
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

23. Your students achieve the most when they are doing which of the following? (Please circle only one number.)

(1) Working independently at their seats
(2) Working in groups of about three students
(3) Working in groups of about five students
(4) Working independently at the chalkboard

24. When you decide to place your students in groups, which of the following do you do most often? (Please circle only one number.)

(1) Allow the students to work in a group of their choice
(2) Place the students in a group appropriate for them
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

25. Which of the following is the most accurate statement concerning the commercial material that you use in your classroom? (Please circle only one number.)

(1) The material is not relevant for a majority of the students.
(2) The material is too easy for a majority of the students.
(3) The material is highly appropriate for a majority of the students.
(4) The material is too difficult for a majority of the students.

26. Of the following, which person(s) do you contact most often for "fresh" ideas for your lessons? (Please circle only one number.)

(1) The school supervisor
(2) Teachers in the school
(3) Both "1" and "2", but "1" more than "2"
(4) Both "1" and "2", but "2" more than "1"

27. Of the following, which is the most effective method of motivating the students in your classes? (Please circle only one number.)

(1) Actively involving them in the learning
(2) Praising them for work well done
(3) Grouping them according to ability
(4) Grouping them according to interest

28. Which of the following encourages your students the most to return their homework? (Please circle only one number.)

(1) Making an assignment that is of reasonable length
(2) Giving credit both for returning the assignment and correctness
(3) Discussing the assignment in class the day it is returned
(4) Making the assignment only when absolutely necessary

29. Which of the following teaching methods is most effective for your students? (Please circle only one number.)

(1) Demonstration method, i.e., teacher showing students
(2) Laboratory method, i.e., students doing themselves
(3) Textbook method, i.e., using material directly from the text
(4) Display method, i.e., using displays in the classroom

30. When you make an assignment for the classroom, which of the following is the most effective? (Please circle only one number.)

(1) Writing the assignment on the chalkboard
(2) Making the assignment orally
(3) Placing the assignment on stencil
(4) Flashing the assignment on a screen

Indicate whether you would like to have a copy of the results of the survey.

Yes _____

No _____

PLEASE RETURN IN THE ENCLOSED, STAMPED, SELF-ADDRESSED ENVELOPE.

APPENDIX B

Chi-square Test of Item Responses
By Race of Teacher and Type
and Location of School

TABLE 24. CHI-SQUARE TESTS OF TEACHERS" PERCEPTIONS OF THE EFFECTIVENESS OF TECHNIQUES OF TEACHING AND LEARNING, BY RACE OF TEACHER AND TYPE AND LOCATION OF SCHOOL

Questionnaire item	Race of Teacher		Type and Location of school	
	X^2	p	X^2	p
1	8.78	.06	26.00	.16
2	2.20	.69	35.35	.01*
3	3.65	.45	24.12	.23
4	9.33	.05*	24.86	.20
5	7.93	.09	27.21	.12
6	4.39	.35	13.52	.85
7	10.32	.03*	38.62	.007*
8	3.50	.47	35.79	.01*
9	6.25	.18	26.42	.15
10	7.05	.13	28.65	.09
11	5.07	.27	26.61	.14
12	7.34	.11	14.15	.82
13	14.60	.005*	29.19	.08
14	13.66	.008*	11.61	.92
15	10.43	.03*	35.41	.01*
16	5.31	.25	60.66	.0000*
17	3.71	.44	21.47	.37
18	12.18	.01*	29.15	.08
19	8.10	.08	35.64	.01*
20	8.16	.08	45.94	.0008*
21	4.53	.33	38.95	.006*
22	10.09	.03*	30.60	.06
23	11.03	.02*	10.21	.96
24	14.52	.005*	54.17	.0001
25	1.98	.73	27.17	.13
26	24.34	.0001*	32.64	.03*
27	11.09	.02*	30.52	.06
28	1.99	.73	30.37	.06
29	9.28	.05*	19.77	.47
30	7.27	.12	21.75	.35

Race of Teacher - df = 4
Type and Location of School - df = 20

* = significant

APPENDIX C

Teachers in Sample, By Race of Teacher
and Type and Location of School

TABLE 25. NUMBER OF TEACHERS INCLUDED IN SAMPLE, BY RACE OF TEACHER AND TYPE AND LOCATION OF SCHOOL

Type and Location of school	Race of Teacher		Total
	Black	White	
Inner-city Elementary	29	68	97
Other-city Elementary	9	76	85
Suburban Elementary	0	58	58
Inner-city Secondary	15	36	51
Other-city Secondary	4	54	58
Suburban Secondary	0	75	75
Total	57	367	424